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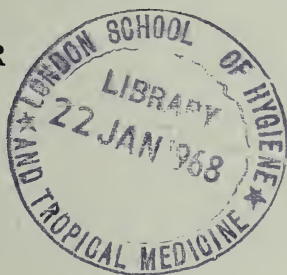
COUNTY BOROUGH OF BLACKBURN

EDUCATION COMMITTEE

ANNUAL REPORT
ON THE
School Health Service

FOR THE YEAR

1966



J. ARDLEY,
M.B., B.S., D.P.H.

Medical Officer of Health.



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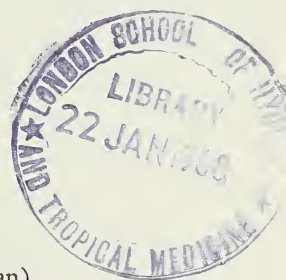
EDUCATION COMMITTEE

1966 - 67

THE MAYOR

(Alderman Mrs. E. RAILTON).

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	J.	ROTHWELL, Esq.
	J.	BOLTON, Esq.
	H.	GREEN, Esq.



OFFICERS EMPLOYED IN THE SCHOOL HEALTH SERVICE

Principal School Medical Officer :

J. ARDLEY, M.B., B.S., D.P.H.

Deputy Principal School Medical Officer :

J. Q. MOUNTAIN, B.SC., M.D., D.P.H.

School Medical Officers :

BERYL SEPHTON, M.B., Ch.B., D.P.H.

L. P. GRIME, L.R.C.P.I. & L.M., L.R.C.S.I. & L.M., D.P.H., M.N.Y.A.S. (to Aug.)

S. V. JOSHI, M.B., B.S., D.C.H., D.P.H. (to May)

SARAH N. JOSEPH, M.B., B.S., D.R.C.O.G., M.M.S.A., D.P.H.

P. S. AGARWAL, M.B., B.S. D.C.H., (from Nov.)

Assistant Medical Officers (Part-time) :

E. CARTER, M.B., Ch.B., D.P.H.

C. Y. HOWARTH, M.B., Ch.B.

S. V. JOSHI, M.B., B.S. D.C.H. D.P.H., (from May)

M. A. BARI, M.B. BS., (from March)

HELEN B. KELLY, M.B., B.Ch., (from Jan.)

Part-time Consultant Medical Officers :

J. EVANS, M.D., F.R.C.S. (Oto-Rhinology).

R. WARD, M.D., M.R.C.P. (Chest Physician).

P. R. STEVENS, M.R.C.S., L.R.C.P., D.O. (Ophthalmology).

Part-time Consultant Orthodontist :

L. C. G. HODGKINS, L.D.S.

Dental Officers :

J. RIGBY, L.D.S., Principal School Dental Officer.

J. GREGSON, B.D.S.

Part-time Dental Officers :

Mrs. L. G. BURKE, B.D.S., L.D.S. (to December).

Superintendent Nursing Officer :

Miss L. M. BROWN, S.R.N., S.C.M., H.V.Cert., Cert. R.S.H.

Deputy Superintendent Nursing Officer

Miss M. E. THOMAS, S.R.N., S.C.M., Q.S., H.V. Cert.

Medico-Social Work, Health Visiting and Clinic Nursing :

Medico-Social Workers	23
Health Visitor/School Nurses	5
Clinic Nurses (including part-time)	8

Physiotherapy :

Senior Physiotherapist	Mrs. M. Kempton, C.S.P.
Physiotherapists	2 (one part-time)

Orthoptists :

Miss A. Greenwood, D.B.O.
Miss M. Watt, D.B.O. (from Jan.)
Mrs. E. A. Ainsworth, D.B.O., (from Dec. part time)

Speech Therapist :

Miss E. V. Grimshaw, (from Jan.)

Dental Attendants :

Senior Dental Attendant	Miss L. E. Walsh
Attendants	2 (one part-time)

Clinic Attendants :

2

Mr. Chairman, Ladies and Gentlemen,

I have pleasure in presenting my eighth Annual Report and 61st of the series, on the work of the School Health Service during 1966.

After the trials and tribulations of the previous year, 1966 was almost an anticlimax. However, as the ship returned to an even keel, so our day to day commitments resumed their normal routine.

Unfortunately, even this presented problems to those on the "bridge." When staff is changing almost constantly, the concomitant difficulty of ensuring continuity of services causes not only administrative difficulties but a sense of frustration or dissatisfaction amongst those on the receiving end of the Service—teachers and general public.

In May, Dr. Joshi left to take up General Practice (although we still enjoy his services on a sessional basis), followed in August by Dr. Grime, on his appointment as Deputy Medical Officer of Health to Preston County Borough.

Both places remained unfilled until November, when Dr. P. S. Agarwal took up one of the vacancies. The other post should be filled early in 1967. Whilst both appointments will fill the clinical gap, neither will contribute for at least twelve months to a reduction in the backlog of children awaiting ascertainment as subnormals.

Administratively, the position was even worse. For three years, attempts have been made to secure two stable clerical units, the members of which could be trained adequately in all aspects of Field Service support in readiness for the move to the Major Health Centres. The School Health Service is, of course, very much involved in these developments.

Unfortunately, the Health Centre projects have been so delayed that by the end of the year the clerical staffing was almost 100% different in personnel to that of 1963.

One of the major difficulties has always been the fragmented nature of the Department's work, with so many offshoots ("branch offices"). During the past two or three years efforts have been made to move staff around as often as the service would allow to ensure that a clerical unit, experienced in all aspects of the work, would be available for each Health Centre.

With such a rapid change-over, this has now proved virtually impossible.

A spot check at the end of 1966 showed that out of a total staff of 17 covering the work of the two Divisions, 12 had less than 2 years service in the Department or particular post ; of these, 9 had less than twelve months service.

On the credit side, staffing in the Health Visiting and School Nursing Section improved slightly, though still remained well below establishment ; Miss E. V. Grimshaw took up appointment as Speech Therapist in January, as did Miss M. Watt in the Orthoptic Department.

I would like to draw your attention to an Article on " Vision Screening of School Entrants " carried out by the Consultant Ophthalmologist (Mr. P. R. Stevens) and your Orthoptists, which is reproduced at the end of this Report. This again shows how research and experiment properly carried out can make a useful contribution towards an improvement in techniques.

In conclusion, may I express my thanks to you, Mr. Chairman, and to members of the Committee, for your continued support during the year.

I remain,

J. ARDLEY,

Your obedient servant,

Principal School Medical Officer.

SCHOOL CLINICS

<i>Designation</i>	<i>Purpose</i>	<i>Where held</i>	<i>Time</i>
Inspection ..	Special Examination of Cases referred by Teachers School Welfare Officers and School Nurses	Richmond Terrace	Wednesday 2.0 p.m. Friday 2.0 p.m.
Ophthalmic	Prescription of Spectacles	„	Monday 8.30 a.m. Tuesday, 2.30 p.m. Thursday, 2.30 p.m. (By appointment)
Dental Clinic	Dental Treatment	„	Every week-day (by appointment).
Minor Ailments	Treatment of Minor Diseases of Skin, etc.	„	Every week-day at 8.45 a.m.
Cleansing ..	Treatment of Scabies and Cleansing of Verminous Cases.	Blakey Moor	By appointment
Physiotherapy	Treatment of Postural Defects, Sunlight	Richmond Terrace	Every week-day (by appointment).
Immunisation	Immunisation against Diphtheria, Whooping Cough and Vaccination against Poliomyelitis	„	Monday, 3.45 p.m. or by appointment.
Vaccination	Vaccination against Small-pox, and Tuberculosis	„	By appointment
Ear, Nose and Throat	Treatment of Deafness, etc.	„	As required (by appointment)
Audiology ..	Diagnosis of Hearing Defects	„	By appointment
Orthoptic ..	Correction of Strabismus	Victoria Street	Every week-day (By appointment)
Speech	Correction of Speech Defects	St. Peter Street	Every week-day (By appointment)
Chiropody ..	Treatment of Foot Defects	King Street and Bridge Street	By appointment

COST OF SCHOOL HEALTH SERVICE

I am indebted to the Borough Treasurer, Mr. L. Wolstenholme, for the following particulars relating to the cost of the School Health Service during 1965-1966.

EXPENDITURE

	£	s.	d.	£	s.	d.
Salaries and Fees	35,449	19	8			
Local Government Superannuation—						
Employer's Contribution	1,803	16	10			
Equal Annual Charge	609	17	8			
National Insurances—						
Employer's Contributions	1,109	13	3			
Staff Training	156	15	11			
Travelling Expenses and Subsistence						
Allowances	499	9	7			
Printing, Stationery, Postages and						
Telephones, etc.	401	13	9			
Drugs, Medical Requisites and Apparatus..	1,538	19	3			
Uniforms	258	14	3			
Rents and Insurances	37	16	3			
Upkeep of Buildings	2,596	0	3			
Medical Inspections—Intending Teachers	425	5	0			
Sundries	3	13	8			
				44,891	15	4

INCOME

Recovered from—

Blackburn Executive Council, N.H.S. (Sight testing)	667	10	0			
Regional Hospital Board—						
Orthoptic Clinics	369	9	10			
Lancashire County Council—						
Orthoptic Clinics	528	5	0			
Services to Health Department—						
Dental Sessions	197	8	0			
Services to Welfare Department—						
Physiotherapy Sessions	492	1	3			
Sundries.. .. .	74	10	0			
				2,329	4	1
EXPENDITURE LESS INCOME				£42,562	11	3

The rateable value of the Borough on 31st March, 1966, was £3,301,272. The cost of medical inspection and treatment in schools for the twelve months ended 31st March, 1966, was £42,563, compared with £39,423 in the previous year.

This was equivalent to £2. 12s. 10d. per child on the school rolls, and expressed as a penny rate was 3.34d.

SCHOOL POPULATION

Particulars of children on the rolls at maintained schools are as follows :

3	Nursery Schools	..	..	..	120
54	Primary School Departments	..	..	..	10,138
12	Secondary Schools	..	..	..	5,551
3	Special Schools	..	..	..	298
	Total	..	..	..	<u>16,107</u>

SECTION ONE

MEDICAL INSPECTION

The programme of Routine Medical Inspection, adopted in 1955, has been continued.

The year's findings are set out on pages 12 to 15 whilst Table 1 below shows the numbers of children examined in years of birth of Groups examined

Table 1.

Year of Birth of Groups Examined	WEST DIVISION	EAST DIVISION	TOTAL
1951 and earlier	753	137	890
1952.....	211	121	332
1953.....	..	..	..
1954.....	176	169	345
1955.....	355	416	771
1956.....	..	2	2
1957.....	..	..	..
1958.....	7	2	9
1959.....	32	96	128
1950.....	191	303	494
1961.....	363	365	728
1962 and later	71	130	201
TOTALS	2159	1741	3900

ROUTINE MEDICAL INSPECTIONS DURING 1966.

(a) Attendance of Parents at Inspections**Table 2**

Year of Birth of Groups examined	WEST			EAST			COMBINED		
	No. Exam.	Par'nts Pres'nt	%	No. Exam.	Par'nts Pres'nt	%	No. Exam.	Par'nts Pres'nt	%
1951 and earlier	753	41	5	137	2	1	890	43	4
1952 ..	211	6	3	121	1	1	332	7	2
1953 ..	..	..	..	..	..	..	..	..	..
1954 ..	176	126	71	169	109	64	345	235	68
1955 ..	355	252	71	416	258	62	771	510	66
1956 ..	..	..	..	2	2	100	2	2	100
1957 ..	..	..	..	..	..	..	..	..	..
1958 ..	7	4	57	2	1	50	9	5	55
1959 ..	32	23	72	96	62	65	128	85	66
1960 ..	191	164	86	303	243	80	494	407	83
1961 ..	363	320	88	365	305	84	728	625	86
1962 and later	71	60	85	130	107	80	201	167	83
TOTALS ..	2159	996	46	1741	1090	63	3900	2086	54

(b) General Condition

The general condition of children examined at Routine Medical Inspection during 1966 was again satisfactory.

(c) Visual Defects and External Diseases of the Eye

Of two hundred and seventy-one children found to have defective vision, two hundred and thirteen were referred for treatment.

In addition to those children with defective vision, twenty-three were found with squint, and five with "Other forms of external eye disease." Twenty-two were referred for treatment.

(d) Ear Disease and Hearing Defects

At Routine Medical Inspection, ninety-seven children found to have ear trouble were dealt with as follows :

				Referred for treatment		Referred for observation		Total
Hearing	..	..	..	68	..	4	..	72
Otitis media		..	..	12	..	—	..	12
Other	..	..	..	9	..	4	..	13

(e) Nose and Throat

Ninety children were referred for treatment and forty-two were placed under observation.

(f) Defective Speech

At routine inspection, twenty-one children were found to be suffering from speech defects, thirteen of whom were referred for treatment.

(g) Orthopaedic Defects

Sixty-eight children were discovered at routine medical inspection as follows :

				Requiring Treatment		For Observation		Total
Posture	..	..	..	7	..	2	..	9
Feet	..	..	..	39	..	1	..	40
Other	..	..	..	11	..	8	..	19

(h) Heart and Circulation

Two children were referred for treatment and twenty-three for observation as a result of defects found at Routine Medical Inspections.

(i) Lungs

Fifteen children were found to have respiratory defects of varying degree, nine of which required treatment.

(j) Miscellaneous Defects

The following table sets out details of other defects found at Routine Medical Inspection :

Table 3.

DEFECT	Requiring Treatment	For Observation	TOTAL
Skin	42	8	50
Lymphatic Glands	—	1	1
Development			
(a) Hernia	3	4	7
(b) Other	2	1	3
Nervous System			
(a) Epilepsy	—	2	2
(b) Other	—	1	1
Psychological			
(a) Developmental	34	62	96
(b) Stability	1	3	4
Abdomen	—	6	6
Other	100	35	135

Table 4.**(k) Comparative Table of Referrals by Division**

DEFECT	Requiring Treatment			For Observation		
	WEST	EAST	TOTAL	WEST	EAST	TOTAL
Skin	39	3	42	8	..	8
Eyes : Vision	112	101	213	32	26	58
Squint	13	5	18	3	2	5
Other	2	2	4	..	1	1
Ears	88	1	89	6	2	8
Nose and Throat	48	42	90	14	28	42
Speech	10	3	13	4	4	8
Lymphatic Glands	..	..	..	..	1	1
Heart	1	1	2	12	11	23
Lungs	9	..	9	6	..	6
Developmental	4	1	5	4	1	5
Orthopaedic	45	12	57	10	1	11
Nervous System	..	..	..	3	..	3
Psychological	21	14	35	28	37	65
Abdomen	..	..	..	6	..	6
Other	68	32	100	26	9	35
TOTALS	460	217	677	162	123	285

Heights and Weights.

Table 5.
WEST DIVISION.

Group	BOYS			GIRLS		
	No. Examined	Average Height in Inches	Average Weight in Pounds	No. Examined	Average Height in Inches	Average Weight in Pounds
1951 & earlier	221	64	116	532	62	118
1952	47	61	105	164	61	113
1953	—	—	—	—	—	—
1954	78	56	79	98	56	77
1955	181	53	79	174	54	80
1956	—	—	—	—	—	—
1957	—	—	—	—	—	—
1958	4	48	44	3	48	52
1959	14	44	49	18	45	47
1960	86	42	42	105	45	41
1961	206	41	39	157	41	40
1962 and later	45	39	38	26	40	37

Table 6.
EAST DIVISION.

Group	BOYS			GIRLS		
	No. Examined	Average Height in Inches	Average Weight in Pounds	No. Examined	Average Height in Inches	Average Weight in Pounds
1951 and earlier	31	64	114	106	61	116
1952	62	62	112	59	62	114
1953	—	—	—	—	—	—
1954	80	57	78	89	57	85
1955	217	55	74	199	56	81
1956	2	—	—	—	—	—
1957	—	—	—	—	—	—
1958	—	49	56	2	51	76
1959	47	46	48	49	46	50
1960	159	44	47	144	45	47
1961	174	43	43	191	42	42
1962 and later	70	41	39	60	41	39

Following-up (WEST and EAST Divisions combined) :*Home Visits*

Follow up	2,432
Infectious Diseases	634
Ineffective visits	238

Special Visits

Special Education Examinations	284
Physically Handicapped	134
Maladjusted	115
	3,837

Table 7.
Visits to Schools

Cleanliness	27,304
Infectious Diseases	265
Other reasons	4,819
	32,388

School Hygiene Inspections

Children free from infection	25,625
Children requiring treatment	1,679
	27,304

TOTAL CLINIC SESSIONS ATTENDED	1,132

SECTION TWO

TREATMENT

Clinics.

Location of the various Clinics is shown on Page 8 of the Report.

Inspection Clinic.

Inspection Clinics at which the School Medical Officers examine children referred for special examination, are held on Wednesday and Friday afternoons. During the year, 1,212 children paid 1,318 visits to the 102 Clinics which were held.

Minor Ailments.

Treatments are given every morning at the School Clinic, by a School Medical Officer assisted by two school nurses.

Table 8.

Complaint	Cases	Attendances
Ringworm—Scalp	—	—
Body	1	1
Scabies	55	100
Impetigo	12	99
Other Skin Diseases	455	472
Minor Injuries	65	177
Verminous Head	66	201
Otorrhoea	—	—
Other Ear Defect or Disease ..	17	24
Blepharitis	—	—
Conjunctivitis	1	1
Other External Eye Disease ..	7	8
Miscellaneous	52	58
TOTALS	731	1141

Tonsils and Adenoids.

In all, three hundred and seventy-eight children were operated upon during the year, two hundred and seventy-seven at Queen's Park Hospital, fifty-six at the Royal Infirmary and forty-five at Accrington Victoria Hospital. At the end of the year, there were one hundred and eighty-four children on the operation waiting list compiled by the School Health Service.

The department is notified of all children operated upon, to ensure follow-up on discharge.

Visual Defects.

The Authority has continued to use the Supplementary Ophthalmic Services for the supply of spectacles to school children. Three clinics are held each week, attended by the Consultant Ophthalmologist, Mr. P. R. Stevens.

During 1966, one thousand five hundred and ninety-eight attendances were made at one hundred and seven sessions. Of these attenders, four hundred and sixteen were new cases : spectacles were prescribed for eight hundred and twenty-seven children.

Physiotherapy and Remedial Exercises Clinic

PATIENTS TREATED AT THE PHYSIOTHERAPY CLINIC AND
AT THE OPEN AIR SCHOOL

Table 9.

	PHYSIOTHERAPY CLINIC								OPEN AIR SCHOOL	
	REMEDIAL EXERCISES				ELECTRICAL TREATMENT					
	School		Pre-School		School		Pre-School			
	Cases	Attendances	Cases	Attendances	Cases	Attendances	Cases	Attendances	Cases	Attendances
Breathing Exercises	22	152	3	9	..	..	..	..	39	678
Postural Defects ..	15	140	..	..	..	..	..	..	7	111
Spinal Curvature..	8	111	..	..	1	5	..	..	..	..
Poliomyelitis.....	2	65	..	..	2	65	..	..	1	36
Congenital Defects	4	62	8	219	..	..	..	..	10	269
Defects of the Feet	107	1168	36	397	3	46	..	..	6	77
Genu Valgum	29	298	40	406	..	..	..	..	..	..
Result of Accident	10	75	..	..	9	67	..	..	..	..
Other.....	2	25	1	27	1	2	..	..	1	1
TOTALS	199	2096	88	1058	16	185	..	..	64	1172

Ultra Violet Light Treatment

One hundred and forty children underwent ultra violet light treatment and received a total of one thousand nine hundred and forty-seven exposures, as follows :

			Cases		Exposures
Physiotherapy Clinic	..	..	118	..	1669
Open Air School	..	..	22	..	278

Orthoptic Clinic.

In January, Miss M. Watt joined the Staff as a full-time Assistant Orthoptist, following her training as a Bursary Student.

Thus, two full-time Orthoptists were again employed during the year, being supplemented from December by the addition of one part-time Orthoptist.

Full sessions have been held at the Victoria Street Clinic whilst two extra sessions were introduced at the Royal Infirmary, bringing the total number of sessions there to seven per week. Ninety-six patients were admitted to the Royal Infirmary during 1966, for surgical correction of strabismus.

The statistics for the year are as follows :—

SCHOOL CLINIC (VICTORIA STREET)—

	Borough	County
New Cases	114	79
Number Cured	45	48
Number discharged		
cosmetically straight	17	22
Number as left District or		
failure to attend		60
Number of Children attended ..	518	489
Number of attendances		3,239

BLACKBURN ROYAL INFIRMARY

Number of New Cases	286	
Number of County Visits	1020	1,628
Number of Borough Visits	608	
Number of Operations	96	

Speech Clinic.

The Clinic re-opened in January on the appointment of Miss E. V. Grimshaw. The previous Speech Therapist, Mrs. Stourton, who resigned in August, 1965, had played a valuable part in organising the service, so that, despite the period of four months during which the Clinic was closed, Miss Grimshaw was soon able to bring the work up-to-date and begin a long needed expansion.

In June, weekly sessions were commenced at Blackamoor Special School, followed by similar arrangements at the Dame Evelyn Fox Junior Training School, Gladstone Street, in September.

The work of the Speech Therapist is linked as much as possible with all other sections concerned. To this end, reports are sent to the Assistant Medical Officers on each child receiving speech therapy, upon investigation of the case and, thereafter, at six monthly intervals. Co-operation with School Health Service staff and with the Education Department has been sought, the resulting response proving most helpful. Unfortunately, it has not been possible to supplement this with school visits and further contacts to the extent that could have been desired. It is hoped that more time for this will be available in the future.

No. of cases attending for speech therapy during 1966 ..	208
No. of cases attending at the end of the year	192
No. of cases discharged during the year	16
No. of attendances made during the year	2449

Child Guidance Clinic.

During the year ninety-five children were seen by the Psychiatrist and Educational Psychologist.

The results of the cases referred were :

	Total
Children for Day E.S.N. School	10
Recommended for Residential School	4
Deferred action	41
No further action	40

Cleansing of Children.

The School Nurses continue to pay regular visits to Schools to examine children for the presence of infestation. During 1966, 27,304 such examinations were made and 1,679 incidents of infestation recorded.

The Clinic Attendant continued to carry out systematic cleansing, and in all, seven thousand two hundred and forty treatments were given to four hundred and twenty six children. All treatments were carried out in school.

Audiometry.

During 1966, the part-time audiometrician tested 2,821 children : 2,034 passing the test covering six different frequencies, at not more than 20-db. loss. 589 were referred to the special clinic for further investigation and 208 who failed by narrow margins were listed for re-testing at the next visit to their school.

Children found at sweep tests to have any significant deafness were, up to 1st March, seen at a special audio clinic, to prevent unnecessary referral to the E.N.T. Consultant of cases requiring only minor treatment, but, in the early part of the year, the Consultant agreed to see all cases after screening for wax and its removal, since then, all cases have been referred to the E.N.T. Consultant.

Up to the closing of the Audio Clinic on 1st March, cases were seen as follows :

	West	East
Referred to E.N.T. Consultant	8	18
For observation and retest after a period	1	1

SECTION THREE

DENTAL INSPECTION AND TREATMENT

I am indebted to Mr. J. Rigby, L.D.S., Principal Dental Officer, for the following report on the work of the School Dental Service during 1966 :

The present year has been a period of marking time until the provision of new dental units in the two Major Health Centres due to be completed in 1968.

Owing to the illness of one member of the staff, it has not been found possible to complete the annual inspection in all schools—approximately two thirds of all children have had a routine dental examination.

Towards the end of the year we lost the services of Mrs. Burke, who was doing three sessions weekly : several advertisements for a replacement proved fruitless.

Normally, casual cases are divided between the two full-time Officers. When your staff is only at half strength, much less time is available for routine treatment since the one officer has also to see all emergency cases. Thus, routine dental treatment has suffered too. This is most unfortunate at a time when the demand for routine treatment is growing and six-monthly checks sought. The acquisition of staff, which we hope will materialise with the opening of the new Health Centres, will help to overcome this difficulty. However, the shortage of Dental Practitioners is not confined to the local authority. It is a matter for concern that Blackburn is very sparsely covered in the General Dental Service itself, there being only approximately 15 practising members of the profession in the town. For this reason it is not easy for school children who have had regular attention at the Clinic during most of their school life to obtain the services of a private dentist on leaving school.

The standard of Oral Hygiene amongst school children continues to improve steadily, although there are still certain black spots, particularly amongst the older age groups.

The demand for Orthodontic Treatment grows year by year and, as a consequence, the waiting list remains lengthy. A point of interest is that the percentage of appointments kept is far higher than in routine cases, probably due to the careful screening of patients, coupled with the aesthetic nature of the service.

Health lectures, which include a proportion of dental matters, are carried out by the Medico-Social Workers and Health Visitors in schools, particularly the secondary modern schools. As mentioned previously, these seem to have a steadily growing effect.

In conclusion, may I thank the dental staff for their loyal work and co-operation, the teaching profession for their helpfulness at inspections and the ensuing arrangements for attendances of children at the Clinic.

J. RIGBY, *Principal Dental Officer.*

ROUTINE DENTAL TREATMENT

Permanent Teeth Fillings	..	..	..	..	..	2354
Temporary Teeth Fillings	..	..	..	..	..	1042
Extractions	..	..	..	..	..	3607
Other Operations (including Orthodontic treatment)	..					3507
General Anaesthetics	..	..	..	..	..	614
Percentage with dental caries	..	..	..	..	..	62%
Percentage of appointments kept	..	..	..	..	..	87%

ORTHODONTIC TREATMENT

(By the Consultant Orthodontist, Mr. L. C. G. HODGKINS, L.D.S.)

Cases carried over from previous year	..	..	..	..	..	66
Cases commenced	..	..	..	..	..	33
Cases completed	..	..	..	..	..	26
Cases discontinued	..	..	..	..	..	3
Pupils treated with appliances	..	..	..	..	..	54
Removable appliances fitted	..	..	..	..	..	52
Fixed appliances fitted	..	..	..	..	..	2
Total Attendances	..	..	..	..	..	703

DENTAL TREATMENT
Table 10

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Appointments made to attend the clinic Number of appointments kept Number of routine cases completed	1966 5696 6652 4813 2193 1965 6652 5250 2113
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SECTION FOUR

INFECTIOUS DISEASES

Information as to the incidence of non-notifiable infectious disease is obtained from teachers, welfare officers, public health inspectors, medico-social workers, health visitors and parents.

The following table gives particulars of cases of infectious diseases occurring in school children during 1966.

Table 11.

	Scarlet Fever	Diphtheria	Measles	Whooping Cough	Chicken Pox	Mumps	Dysentery	Primary Pneumonia	Acute Poliomyelitis	Cerebro- Spinal Fever	Food Poisoning
January }	21	-	8	-	16	11	-	-	-	-	-
February }											
March	34	-	6	-	53	19	2	-	-	-	-
April	12	-	4	-	-	7	-	-	-	-	-
May	12	-	32	-	3	13	2	-	-	-	-
June	8	-	13	-	6	17	1	-	-	-	1
July }											
August }	6	-	25	-	1	1	4	-	-	-	-
September ..	-	-	66	-	3	1	4	-	-	-	-
October	3	-	113	-	9	29	1	-	-	-	-
November	3	-	153	-	23	5	6	-	-	-	-
December	5	-	116	-	25	1	1	-	-	-	-
TOTALS ..	104	-	536	-	139	104	21	-	-	-	1

SECTION FIVE

HANDICAPPED PUPILS

Ascertainment

The arrangements for the ascertainment of pupils requiring special educational treatment are covered by regulation of the Minister of Education, and have been detailed in previous reports.

Special School Provision

There are three special schools provided by the Authority, a School for Delicate and Physically Handicapped children, a school for Partially Sighted Pupils in Corporation Park and Crosshill School for Educationally Subnormal Pupils.

Partially Sighted Pupils are admitted to the Special School in Corporation Park. At the end of the year' fifteen children (nine boys and six girls) were in attendance.

I append a report of the School's activities by the Headmaster, Mr. H. H. Evans :

Of the four children who left during the year, two boys and one girl had attained 16 years of age and all went straight into employment. We were fortunate in getting them placed in employment because as each year passes it is becoming increasingly difficult to find suitable openings for children leaving a school such as this. The remaining leaver, a boy of 10, returned to an ordinary school for a trial period of one year.

Quite a number of students and teachers visited the school during the year for observation purposes, the majority of them being experienced teachers doing a one year course on the education of handicapped and also slow learning children.

Because of the fact that there was to be no Children's Section at the Blackburn Agricultural Show this year we decided to hold an Open Day so that the large amount of good quality art and craft work done should be seen by as many people as possible. We were privileged on this occasion to have the Mayor, Councillor Mrs. Edith Railton, and the Mayoress in attendance together with Councillor Tom Taylor, Chairman of the Education Committee and Mr. J. Dawkins, Chief Education Officer. The Open Day was held on 13th July, 1966.

The Nativity Play this year was an outstanding success and reflected great credit on all the children who readily accepted the challenge to tackle a rather ambitious project. The play was presented on two consecutive days, first to the Park Staff and then to parents and friends. On the second occasion the Mayor and Mayoress of Blackburn attended together with Mr. Mayall, Deputy Education Officer. Our thanks are due to the Head Teacher of Marymount School who provided us with a small choir of senior girls to sing carols between the scenes, also to Miss C. Simpson, Music Organiser, who is ever ready to give her invaluable help to the school.

The normal work of the school this year was considerably disrupted by the absence of the part-time qualified assistant teacher for a period of some fourteen weeks. Since no replacement was available during any of that time the academic work naturally suffered.

In conclusion, my thanks are due to the School Nurse and the several departments of the Health and Education Offices for their help during the past year ; also mention must be made of the continued dedication of the part-time staff of the school, both teaching and welfare to whom the word "teamwork" is fully understood and practised.

H. H. EVANS, *Headmaster.*

Blackamoor School

I append a report of the Headmaster, Mr. H. Harling,

Thirty-five children were admitted and thirty-one discharged during 1966 ; one hundred and thirty-nine being in attendance at the end of the year. A comparison of these figures with those for 1965 shows that there has been an increase of twelve in the number of children admitted.

The reasons for the admission of the thirty-five new cases were as follows :—

General Debility..	9	Nephrosis.....	1
Nervous Debility..	1	Congenital Dislocation of Hips	1
Delicate	3	Anaemia	1
Asthma	5	Spina Bifida.....	3
Coeliac Disease ..	2	Hemiplegia and L. Spasticity..	1
Post Meningitis ..	1	Cerebral Palsy.....	1
Epilepsy	3	Congenital Heart Disease	1
Sinusitis	1	Re-admitted.....	1

An assessment of categories of handicap taken at the end of the year shows as follows :—

Delicate	94	Maladjusted.....	3
Physically Handicapped..	30	Speech Defect.....	1
Epileptic	4	Partially Sighted.....	2
Partially Hearing.....	4		

31% of the children on roll were diagnosed as suffering from complaints other than Delicate, 21% being Physically Handicapped.

During the year the Education Committee reconsidered the status of the School and resolved that, as from September 1966, the School should be re-named the Blackamoor Special School, and that the number of places available be amended to 150.

There were five thousand, five hundred and eighteen visits to the medical room during the year. Children having fits were attended on sixty-three occasions by the school nurse ; five children were sent by ambulance to Blackburn Royal Infirmary.

Since May 1966 a Speech Therapist has visited the school each Tuesday afternoon giving speech training to eighteen children.

Two teachers have been seconded for one year in order to take university courses ; one the Advanced Diploma in Education at Keele University and the other a special course for teachers of Handicapped Children at Liverpool University. These teachers have been replaced by temporary staff until July, 1967.

Average attendances were :	Easter Term	77%
	Summer Term	84%
	Autumn Term	80.4%

The highest percentage of average attendance was 87.9%.

Again I offer my sincere thanks to the School Staff for their whole-hearted co-operation. On behalf of us all I thank also the various departments of the Education Office and the School Medical Service.

T. HARLING.

Educationally Subnormal Pupils.

During the year, sixty-two children have been examined regarding their mental conditions, with results as follows :

	<i>West</i>		<i>East</i>
Recommended for Special Day Schools.....	12	..	16
Recommended for Special Residential Schools..	3	..	1
Required no action	9	..	4
Decision deferred.....	3	..	1
Unsuitable for education at school.....	4	..	2
Referred to Child Guidance Clinic.....	6	..	2
Discharged from Special School.....	—	..	—

I append the report of the Headmaster, Mr. F. Duerden, on the School's activities during the year.

During the year 34 children were admitted and 20 left—eleven entered employment, four left town, four were committed to Residential Schools and one to Hospital. By the end of the year there were 146 children on roll although there is accommodation for 180.

Since the inception of the school at Four Lanes' End in 1954, I have called attention in my reports to circumstances outside the control of my Staff which were impeding the general organisation and smooth progression of the remedial teaching. In last year's report I quoted specifically from my report for 1961. I make no apologies for repeating this in view of the fact that during this year the difficulties mentioned have tended to increase rather than diminish.

“ The casual system of reporting suspected E.S.N. children to the Authority

In common with many other Local Authorities, Blackburn has no regularised system of reporting suspected E.S.N. children for medical ascertainment. Broadly, anyone who comes in official contact with children can suggest that an examination would be advisable, but whether or not this reporting is done appears to be entirely discretionary. This is not so in the progressive larger Authorities where procedure is laid down resulting, by and large, in the ascertainment of these children at an appropriate age (usually round about seven years). If such a system were in operation in Blackburn, and I would stress that there are no inherent difficulties in instituting this, the vast majority of organisational problems within this school would be eliminated. Further the smooth progression to an extension of E.S.N. provision in the future, and an extension to the educational remedial work in 'ordinary' schools, would be facilitated.”

“The competing claims of various priority classes.

Many priority cases are children who have developed behaviour problems or drifted into delinquency over a long period and their educational sub-normality has only been officially established during their later school life. An E.S.N. child does not suddenly become E.S.N.—limited ability, not attainment, is the operative factor and this is equally evident at 7 years as at 13 years of age. My mental reaction on receipt of such cases is always ‘If this child had been ascertained at 7 years of age and could have received appropriate treatment he might not have developed the anti-social tendencies he is now showing’.

Systematized ascertainment would have discovered his needs years before. Such cases are increasing.”

I also called attention to the fact that although on transfer of the school to Crosshill the number of places available had increased from 100 to 180 the “build-up” as far as numbers on roll was concerned was being unduly protracted, and expressed the hope that the Authority would make a definite effort to implement that section of the 1944 Education Act which requires each L.E.A. at least to ascertain the number of E.S.N. children in its area.

By the end of 1966 out of the extra 80 places available since September 1964, only 46 have been filled. From an examination of national statistics concerned with the number of E.S.N. children to be expected in a typical school population, and there is no reason to suggest that Blackburn does not fall within this category, my own estimate is that there should be at least 240 E.S.N. children requiring special educational treatment. Despite the existence of special classes for ‘backward’ children (not necessarily E.S.N.) it would appear that there must be many E.S.N. children who are still in schools for which they are unfitted.

As regards the difficulties arising from the casual system of reporting children, statistical records which have been kept since 1955 (the first full year of the school’s life) show that the disbalance of ages within the school is being perpetuated rather than eliminated, and that the late entry of children is increasing—

AGES AT END OF YEAR (Percentages)—

	16+	15+	14+	13+	12+	11+	10+	9+	8+	7+	6+
1961 ..	-	1	16	16	16	16	14	11	5	3	1
1965 ..	3	7	14	11	11	17	14	10	7	5	1
1966 ..	2	12	10	11	16	15	13	8	8	5	-

AGES BETWEEN 11 AND 15 YEARS ON ADMISSION :

1957/61 ..	24.5%	of all new entrants.
1962/65	26.9%	“ “ “ “
1966	35.2%	“ “ “ “
Since Crosshill opened	— 32%	“

It is interesting to speculate on the reason for this increase in the reporting and ascertainment of children at the Secondary School stage, especially as in recent years more and more provision has been made within the schools concerned for dealing with children of low attainment. From conversations with our colleagues it would appear that truancy, delinquency and reprehensible conduct is increasing in all types of schools. This is certainly so in our case, especially amongst those who come to us later in their school life. A great part of our work has always been concerned with the emotional difficulties of individual children but we are increasingly wondering whether low attainment is the prime reason for the transfer of difficult cases to us.

In 1965, owing to the increasing number of younger entrants who had started the i.t.a. system of reading prior to entry, it was felt advisable to carry on with this system alongside the traditional way although there was little published evidence as to the results with E.S.N. children. Although this meant extra preparation for the teachers concerned and extra expenditure for books and apparatus for the L.E.A., the results have been encouraging enough to continue running the two systems side by side. Another change in organisation on moving to Crosshill was in the teaching of the basic subjects. Previously this teaching had been done with groups of children of about the same ability with no reference to their chronological age. After long discussion it was decided to teach these subjects in the child's own class whatever his ability. This change has proved to be beneficial in every way. The chief gain appears to have been on the emotional side and a strengthening of the personal ties between each child and his own teacher and an undoubted gain in fostering the family spirit within the school as a whole.

The year was a settled one from the point of view of staffing. Absence through illness was limited to a few days only and never necessitated temporary teachers. One teacher resigned because of family reasons and a new teacher was appointed and started his duties in May. A new Speech Therapist was appointed, spending one session a week in school. Her conscientious work and personal interest in the children is worthy of commendation. In the early months of the year we were again somewhat hampered by the presence of workmen—this time outbreaks of dry rot which necessitated a re-allocation of classrooms.

The usual internal functions were held during the year—School Birthday Party, Film Shows, Cookery Display, Carol Service, and Christmas Party. Owing to the increased numbers it was necessary to have two Christmas Parties—one for Juniors and one for Seniors.

We still receive an unending stream of visiting students of various kinds, and from time to time colleagues, usually from Secondary Schools, who are in charge of special classes of the less able children. Despite the consequent interference with the normal work of both the children and the staff, such visitors are always welcomed and given as much information and assistance as possible. At the same time it is somewhat galling to find that often teachers in the latter category, although dealing with smaller groups of children within their own schools, receive more salary than the staff of an E.S.N. school.

Contact with all the local services concerned with the welfare of children has been maintained, and in many cases developed, throughout the year. By the nature of things this is often unofficial and I am grateful to all concerned, both officials and workers in the field, for interest and help so freely and cheerfully given at all times. I am particularly grateful to the Education Committee through the Chief Education Officer and his Staff for their consideration and help.

Above all, I would again acknowledge the devoted, conscientious work of every member of my own Staff. In this special kind of work far more is required than the ability to teach and I consider myself fortunate to work with such colleagues and friends. I always have been, and still am, deeply appreciative of their constant contributions to the life and work of the school, and grateful for all their help and consideration so freely and unselfishly given to the children and myself.

HANDICAPPED PUPILS REQUIRING EDUCATION IN SPECIAL SCHOOLS
AT THE END OF THE YEAR.

Table 12.

	Blind	Part- ially Blind	Deaf	Part'y Deaf	Physi- cally Handi- capped	Deli- cate	Malad- justed	E.S.N.	Epilep- tic	Speech Def'ts	Total
(i) Number of pupils requiring places in special schools :											
(a) day places	..	..	..	..	1	8	..	4	..	..	12
(b) boarding places	..	..	..	..	2	..	2	4	..	..	8
(ii) Number of pupils included at (i) who had not reached the age of 5 and were awaiting											
(a) day places	..	..	..	..	..	..	..	..	..	..	..
(b) boarding places	..	..	..	..	..	..	..	..	..	..	..
(iii) Number of pupils included at (i) who had reached the age of 5 but whose parents had refused consent to their admission to a special school.											
(a) day places	..	..	..	..	..	..	..	..	..	..	..
(b) boarding places.....	..	..	..	..	..	..	..	..	..	..	..

Analysis of Special Schools to which Blackburn Children have been admitted.

On 20th January, 1967, 341 children (194 boys and 147 girls) were in special schools as follows :—

BLIND PUPILS						<i>Boys</i>	<i>Girls</i>
Wavertree School, Liverpool	..	..	..	..	..	3	—
St. Vincent's, Liverpool	..	..	..	..	..	1	—
Hethersett	..	..	..	..	..	—	1
PARTIALLY SIGHTED PUPILS							
Partially Sighted Class, Corporation Park	..	..				1	—
Black-a-moor Special School	..	..	..	..	..	1	1
DEAF PUPILS							
Mary Hare Grammar School, Newbury	..	..				1	1
Royal Cross School for the Deaf, Preston	..	..				1	8
PARTIALLY DEAF PUPILS							
Thomasson Memorial School, Bolton	..	..	..			2	1
Southport School for Partial Hearing	..	..	..			1	—
Black-a-moor Special School	..	..	..	..	..	2	2
DELICATE PUPILS							
Lostock Open Air School, Bolton	..	..	..	..		—	2
St. John's School, Woodford Bridge	..	..	..			1	—
Black-a-Moor Special School	..	..	..	..	..	43	50
EDUCATIONALLY SUBNORMAL PUPILS							
Rudolf Steiner, Ringwood	..	..	..	..	..	1	—
Crosshill Special School	..	..	..	..	..	97	57
Crowthorn, Bolton	..	..	..	..	..	2	—
Besford Court, Worcester	..	..	..	..	..	1	—
Aldwark Manor, Hull	..	..	..	..	..	1	—
Allerton Priory, Liverpool	..	..	..	..	..	—	1
Massey Hall, Warrington	..	..	..	..	..	—	2
Pitt House, Devon	..	..	..	..	..	2	—
Pontville, Ormskirk	..	..	..	..	..	1	—
MALADJUSTED							
Pitt House, Devon	..	..	..	..	..	1	—
Wessington Court, Hereford	..	..	..	..	..	1	—
Larches House, Preston	..	..	..	..	..	—	1
Eden Grove, Appleby	..	..	..	..	..	2	—
Edith Edwards House School, Banstead	..	..	..	..	..	1	—
Cotswold Chime, Stroud	..	..	..	..	..	1	—
Burnt Norton, Gloucester	..	..	..	..	..	1	—
Black-a-moor Special School	..	..	..	..	..	2	1
EPILEPTIC PUPILS							
Harrison Home, Maghull	..	..	..	..	..	1	1
Black-a-moor Special School	..	..	..	..	..	3	1
Colthurst House, Cheshire	..	..	..	..	..	1	—
PHYSICALLY HANDICAPPED							
Chailey Heritage, Lewes	..	..	..	..	..	1	—
Black-a-moor Special School	..	..	..	..	..	15	16
Birtenshaw Hall, Bolton	..	..	..	..	..	—	1
Bradstock Lockett, Southport	..	..	..	..	..	1	—
Pictor House, Sale	..	..	..	..	..	1	—

SECTION SIX

MISCELLANEOUS

Co-operation

Teachers, parents and School Welfare Officers have fully co-operated in the work of the School Medical department. To them my thanks are expressed.

National Society for the Prevention of Cruelty to Children.

Mr. D. J. Evans, Inspector of the Blackburn Branch, works in close association with the Department, and his continued help is much appreciated.

During the year 1966, eight cases were reported through the School Health Service, involving the welfare of sixteen children.

They all responded to warnings and advice.

Employment of Children and Young Persons.

School Medical Officers examined 1,222 children for employment during the year.

Four hundred and nine children (275 boys and 134 girls) were newly licensed for employment out of school hours ; no children were licensed to take part in entertainments.

Deaths of School Children.

Measles	..	..	..	..	1
Congenital Malformation				..	1
Bronchial Asthma			..	..	1
Accidents	..	..	..	..	4

Nursery Classes.

There are twenty-nine Nursery Classes in the Borough for the accommodation of children between the ages of three and five years. Inspection findings of children in attendance at these classes are incorporated in the appropriate group of Periodic Medical Inspection Tables.

The number of children on the rolls at the end of the year was 886.

School Nurses visit each Nursery Class at frequent regular intervals.

Physical Education.

I am indebted to the Chief Education Officer for the following Report on Physical Education in the Schools :—

“ During the year physical education in the schools has followed its normal pattern, though it is not always easy for adequate time to be allocated to the subject. As the general curriculum in schools broadens out each subject already on the programme suffers some loss of time. Despite this the standard of achievement is maintained and teachers are to be commended for their continuing enthusiasm and hard work, sometimes under considerable difficulty. In the Primary Schools a few still have no indoor accommodation for physical education and dance. Consequently progress is hampered by the lack of continuity which is so often caused by spells of bad weather when no physical education can be taken out of doors.

It is disappointing that the development of playing fields has not kept pace with the completion of new schools. It is almost impossible to make adequate arrangements for all Secondary School children to take part in organised games. Also, considerable time is wasted when parties must be transported to playing fields at some distance. Where schools have playing fields on the spot the general improvement in all out of door activities is most apparent, and ‘dinner hour’ and ‘after school’ clubs flourish.

With the re-organisation of Secondary Education, and revised schemes for physical education, there is an increased demand for participation in Outdoor Pursuits and other activities not previously attempted. More trampolines are now regularly in use. Golf and ski-ing are being coached; boys and girls are taking part in regular instruction in Tennis, Badminton and Table Tennis. It is hoped all these activities will be pursued after leaving school.

Much devoted service is given by teachers to many ‘out-of-school’ activities—regular school matches in many games and sports, Swimming, Canoeing, Sailing and other pursuits. As a result, Blackburn is well represented by Town Teams in several games and athletics.

The usual programme of recreative classes has taken place each Wednesday Evening at the Harrison and Barton Street Gymnasia, and Keep-Fit and Recreative Classes, arranged by the People’s College are held at Evening Institutes throughout the winter sessions.”

Milk Supplied to Schools.

The number of bottles (each containing $\frac{1}{8}$ -pint) supplied during the year, 1st January to 31st December, 1966, was as follows :—

(a) Secondary Schools	..	639,624
(b) Primary Schools		1,695,904
(c) Special Schools		67,495
(Blackamoor, Myope and Crosshill).		
(d) Nurseries		19,168

School Meals Service.

Meals supplied to children during the year, 1st January to 31st December, 1966.

Primary and Secondary Schools :			
	Free	..	124,134
	Paid	..	1,770,672
			1,894,806
Special Schools :			
	Free	..	6,097
	Paid	..	40,440
			46,537
Nursery :			
	Free	..	Nil.
	Paid	..	18,507
			18,507
Junior Training Centre			
			6,517
			1,966,367

Average daily number fed during each month in 1966 :

January	11,120	May	11,817	September	11,884
February	10,418	June	11,099	October	12,260
March	11,376	July	11,219	November	11,640
April	11,407	August	150	December	11,766

MINISTRY OF EDUCATION

MEDICAL INSPECTION OF PUPILS ATTENDING MAINTAINED AND ASSISTED PRIMARY AND SECONDARY SCHOOLS

A. PERIODIC MEDICAL INSPECTIONS

Age Group	Number Inspected	Physical Condition		Requiring Treatment		
		Satisfactory	Unsatisfactory	Vision	Any other Condition	Individual Pupils
1962 and later	201	201	..	7	32	35
1961	728	728	..	33	124	143
1960	494	494	..	30	51	74
1959	128	128	..	3	25	21
1958	9	9	..	..	1	1
1957	..	..	..	..	..	..
1956	2	2	..	1	..	..
1955	771	771	..	39	87	111
1954	345	345	..	17	43	53
1953	..	..	..	..	..	..
1952	332	332	..	23	24	46
1951 and earlier	890	890	..	60	77	128
TOTAL ..	3900	3900	..	213	464	612

B. OTHER INSPECTIONS

Number of Special Inspections	..	..	..	..	1055
Number of Re-Inspections	..	..	..	..	1286
TOTAL	..	..	..	..	2341

C. INFESTATION WITH VERMIN

- (i) Total number of individual examinations in the schools by the school nurses or other authorised persons 27304
- (ii) Total number of individual pupils found to be infested .. 390
- (iii) Number of individual pupils in respect of whom Cleansing Notices were issued (Section 54(2), Education Act, 1944) .. Nil.
- (iv) Number of individual pupils in respect of whom Cleansing Orders were issued (Section 54(3), Education Act, 1944) .. Nil.

DEFECTS FOUND BY MEDICAL INSPECTION DURING THE YEAR

Table 13.

Defect Code No.	Defect or Disease		Periodic Inspections				Special Inspections
			Entr'nts	Leavers	Others	Total	
4	Skin	T	5	21	16	42	5
		O	2	3	3	8	-
5	Eyes— <i>a.</i> Vision	T	70	83	60	213	65
		O	25	23	10	58	7
	<i>b.</i> Squint	T	13	2	3	18	16
		O	3	2	-	5	1
	<i>c.</i> Other	T	3	1	-	4	1
6	Ears— <i>a.</i> Hearing	O	1	-	-	1	-
		T	24	19	25	68	28
	<i>b.</i> Otitis Media ..	O	1	3	-	4	-
		T	3	1	8	12	-
	<i>c.</i> Other	O	-	-	-	-	-
7	Nose and Throat	T	6	1	2	9	3
		O	-	1	3	4	-
	Speech	T	64	12	14	90	38
		O	38	-	4	42	-
	Lymphatic Glands	T	9	1	3	13	30
8	Heart	O	8	-	-	8	-
		T	1	-	-	1	-
	Lungs	T	1	1	-	2	-
		O	17	1	5	23	5
	Development— <i>a.</i> Hernia	T	8	-	1	9	4
9	Development— <i>a.</i> Hernia	O	5	1	-	6	-
		T	2	1	-	3	1
	<i>b.</i> Other	O	3	1	-	4	-
		T	1	-	1	2	8
		O	1	-	-	1	3
10	Orthopaedic— <i>a.</i> Posture	T	2	1	4	7	5
		O	-	-	2	2	-
	<i>b.</i> Feet	T	22	2	15	39	15
		O	1	-	-	1	-
	<i>c.</i> Other	T	6	4	1	11	6
11	Nervous System—	O	3	5	-	8	1
		T	-	-	-	-	-
	<i>a.</i> Epilepsy	O	-	-	-	-	-
		T	-	1	1	2	-
	<i>b.</i> Other	O	-	-	-	-	-
12	Psychological—	T	1	-	-	1	-
		O	-	-	-	-	-
	<i>a.</i> Development ..	T	10	6	18	34	6
		O	29	4	29	62	-
	<i>b.</i> Stability	T	-	-	1	1	-
13	Abdomen	O	3	-	-	3	-
		T	-	-	-	-	-
	Other	O	2	2	2	6	-
		T	37	28	35	100	82
		O	14	-	21	35	23

TREATMENT OF PUPILS ATTENDING MAINTAINED AND ASSISTED PRIMARY AND SECONDARY SCHOOLS

GROUP A—EYE DISEASES, DEFECTIVE VISION AND SQUINT

	No. of cases known to have been dealt with
External and other, excluding errors of refraction and squint	33
Errors of refraction (including squint)	1565
TOTAL	1598
Number of pupils for whom spectacles were prescribed ..	827

GROUP B—DISEASES AND DEFECTS OF EAR, NOSE AND THROAT

	No. of cases known to have been dealt with
Received operative treatment—	
(a) for diseases of the ear	70
(b) for adenoids and chronic tonsillitis	378
(c) for other nose and throat conditions	123
Received other forms of treatment	57
Total	623
Total number of pupils in schools who are known to have been provided with hearing aids	
(a) in 1966	3
(b) in previous years	22

GROUP C—ORTHOPAEDIC AND POSTURAL DEFECTS

	No. of cases known to have been dealt with
(a) Pupils treated at clinics or out-patient departments	303
(b) Pupils treated at school for postural defects ..	63
Total	366

GROUP D.—DISEASES OF THE SKIN

	No. of cases known to have been dealt with
Ringworm—(i) Scalp	—
(ii) Body	1
Scabies	55
Impetigo	12
Other skin diseases	155
TOTAL	223

GROUP E.—CHILD GUIDANCE TREATMENT

Number of pupils treated at Child Guidance Clinics under arrangements made by the Authority	95
---	----

GROUP F.—SPEECH THERAPY

Number of pupils treated by Speech Therapists under arrangements made by the Authority ..	177
---	-----

GROUP G.—OTHER TREATMENT GIVEN

(a) Number of miscellaneous minor ailments treated by the Authority	220
(b) Pupils who received convalescent treatment under School Health Service arrangements ..	4
(c) Pupils who received B.C.G.	909
(d) Others—	
1. Orthoptics*	518
2. Sunlight	118
3. Cleansing	426
4. Chiropody	135
5. Audiometry	2821
TOTAL (a—d).. .. .	5151

* In addition 489 Lancashire County Council pupils were dealt with during the year.

SCHOOL DENTAL SERVICE

1. Attendances and Treatment

	Ages 5 to 9	Ages 10 to 14	Ages 15 & over	Total
First Visits	1572	1185	190	2947
Subsequent Visits	1234	1412	237	2883
Total Visits	2806	2597	427	5830
Additional courses of treatment commenced	43	56	6	105
Fillings in permanent teeth ..	670	1319	365	2354
Fillings in deciduous teeth ..	956	86	—	1042
Permanent teeth filled	585	1153	315	2053
Deciduous teeth filled	853	79	—	932
Permanent teeth extracted ..	161	588	166	915
Deciduous teeth extracted ..	2179	513	—	2692
General anaesthetics	367	216	31	614
Emergencies	507	238	56	801

Number of Pupils X-rayed	96
Prophylaxis	79
Teeth otherwise conserved	1
Number of teeth root filled	5
Inlays	—
Crowns	2
Courses of treatment completed	2113

2. ORTHODONTICS

Cases remaining from previous year	..	..	67
New cases commenced during year	..	..	42
Cases completed during year	..	..	29
Cases discontinued during year	..	..	7
No. of removable appliances fitted	..	..	62
No. of fixed appliances fitted	..	..	2
Pupils referred to Hospital Consultant..	..		3

3. PROSTHETICS

	5 to 9	10 to 14	15 and over	Total
Pupils supplied with F.U. or F.L. (first time)	.. —	—	—	—
Pupils supplied with other dentures (first time)	.. 2	19	6	27
Number of dentures supplied	 2	19	6	27

4. ANAESTHETICS

General Anaesthetics administered by Dental Officers .. 10

5. INSPECTIONS

(a) First inspection at school.	Number of Pupils	..	..	..	..	9805
(b) First inspection at clinic.	Number of Pupils	..	..	..	..	425
	Number of (a)+(b) found to require treatment	..	..	..	..	6131
	Number of (a)+(b) offered treatment	..	..	..	..	3783
(c) Pupils re-inspected at school clinic	..	..	..	..	..	629
	Number of (c) found to require treatment	..	..	..	..	359

6. SESSIONS

Sessions devoted to treatment	..	..	..	..	..	761
Sessions devoted to inspection	..	..	..	..	..	90
Sessions devoted to Dental Health Education	..	..				—

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VISION SCREENING OF SCHOOL ENTRANTS

BY

ANN AINSWORTH, ANNE GREENWOOD,
SUSANNE ZINTEL,* and P. R. STEVENS

Public Health Office, Blackburn.

The need for the constant supervision of visual function from early childhood to maturity is widely accepted today. Particular emphasis is placed upon the assessment of visual acuity at school entry : a time when a new importance is placed upon vision in the acquisition of learning, and a time to prevent the fixation of abnormal states of visual function. Vision screening of school entrants is actively encouraged by the Principal School Medical Officer of the Ministry of Education (Dept. of Education and Science, 1964), who reports that all but 46 local education authorities take part in this programme. In 1963, 19,903 entrants were found to be in need of treatment to overcome a defect of vision.

Various methods have been used for the vision screening of school children, but many are not, in our experience, completely reliable or suitable for the young child. The Snellen Test Chart both in capital and lower-case letters is out of the reach of the majority of young entrants who have not yet learned the alphabet. The illiterate E Test suffers from many disadvantages. In particular we have found that young children do not always grasp readily what is required of them at the first attempt to test them with the E. They often require a preliminary period of practice, either at home (with their parents or in the clinic : a time-consuming procedure which can be ill-afforded when large numbers of children have to be dealt with. Many children have difficulty in demonstrating the lateral positions of the E, and it becomes doubtful whether the letter is being seen correctly. Nevertheless, the E Test would appear to be more reliable than the Sjogren Hand Test with which it was compared by Groarke, Spiller, and Jamieson (1960). They came to the conclusion that the high proportion of false-negatives as compared with the E Test made the Sjogren Test unreliable for the vision screening of school entrants.

Sutcliffe (1958) suggested that visual screening of young children might be carried out as part of the orthoptic service, and in 1960 she described a survey of 310 children whose visual acuity was assessed by a series of picture charts (Sutcliffe, 1960). A recognition chart was sent to the parents before the examination of their child for him to learn to name the test objects. We felt that this was too laborious a method when dealing with large numbers. It was also considered that this test was more applicable to age groups younger than we were to screen.

Sheridan (1960) described a chart using simple letter shapes which the child matched from a key-card. It is the purpose of this paper to describe a vision screening survey of school entrants using a test similar in conception, including simple geometric shapes as well as simple letter forms, and again based upon the principles of the Snellen Test Chart.

*Present Address : Calgary Canada.

MATERIAL

The visual acuity of 3,727 children attending the infant classes of 45 Primary Schools of the Blackburn Education Authority was tested by A.A., A.G. and S.Z. This survey took place between March 29, 1962, and February 6, 1964. An average of fifty children were tested at one session each week during the school terms. The ages of the children ranged between 3 and 8 years. One of three methods of testing visual acuity was employed for each child after a preliminary explanation of the test to be used. The number of children performing each test was as follows :

Type of Test	No. of Children
Shape	2,369
E	1,195
Snellen	163
Total	3,727

All children having equal vision in both eyes of 6/9 or better, or a visual acuity of no more than 1 line difference on the test charts between the two eyes, the better eye being 6/6, were regarded as normal (Table I). Children who failed to reach this standard of visual acuity were referred to the Consultant Ophthalmologist (P.R.S.) for further investigation and treatment. In addition, an external ophthalmic examination and an assessment of the ocular muscle balance by means of the cover test were also carried out, and children with defects demonstrated by these tests were also referred for further investigation.

TABLE I
CHILDREN WITH NORMAL VISUAL ACUITY

Age (Yrs)	Type of Test			Total
	Shape	E	Snellen	
3—4	51	22	0	73
4—5	434	369	0	803
5—6	759	388	16	1,163
6—7	762	267	107	1,136
Over 7	112	33	17	162
Total ..	2,118	1,079	140	3,337

As a result of this survey 390 children (10.5 per cent.) were referred for more detailed ophthalmological examination. Altogether 54 children failed to attend for that examination and are entirely excluded from the analysis of the results. In addition, 24 children (0.6 per cent.), all under the age of 4 years, failed to respond to any of the sight-testing methods employed, and, although referred to the Ophthalmologist for refraction, they are not included in the results described below.

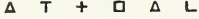
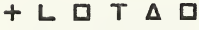
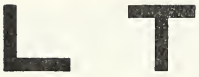
METHOD

The Shape Test was devised as an easily learnt, quick in performance, simple and yet accurate method of assessing the visual acuity of a child. The degree of difficulty experienced by a visually handicapped child in meeting the requirements of an examination of his visual acuity depends largely upon the severity of the defect. Thus his ability to understand what is required of him is impaired proportionately. A feature of the Shape Test is that the child can handle the key-card and inspect at close hand the shapes that he is required to recognize at the conventional distance of 6 metres. The shapes are of simple geometric form and their recognition is not dependent upon previous visual experience. Comprehension of what is expected and the ability to perform the test are within the capability of young children from the age of 3 years onwards.

Five easily recognized symbols were chosen (Fig. 1, overleaf), and presented to the subject in the same form as the Snellen Test Chart. The test was prepared in the same form as the extant E and Snellen Charts in order to preserve unity between the tests and to allow the child as he develops to progress from the simpler chart to the Snellen Chart with the minimum of difficulty. The child was given a key-card upon which to point out the symbols indicated to him by the examiner. This avoided the necessity for the child to name or describe the symbols, an insuperable task for some of the younger children (Fig. 2, overleaf).

Children referred for further examination were all retested by the same method from which they were referred. They were then refracted after the instillation of a cycloplegic (Cyclogyl), and where appropriate a more detailed orthoptic examination was carried out.

A comparison was made between the Shape Test and the E Test. A group of fifty children between the ages of 6 and 7 years were selected. Each child performed each test in turn. They were then refracted. Of these children, 47 were found to have either equal refraction between the two eyes (39 cases) or anisometropia of not more than 0.50 dioptre (eight cases). The total refractive error of these children did not exceed 1.50 dioptre of hypermetropia. The results in terms of visual acuity with each test are shown in Table IIA (overleaf). This group of children scored fairly evenly between the two tests, although the E Test suggested a lower visual acuity than the Shape Test in a small proportion of cases. The three children with an error of refraction exceeding 1.50 dioptre which resulted in low visual acuity were picked out by each test (Table IIB, overleaf).



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FIG. 1

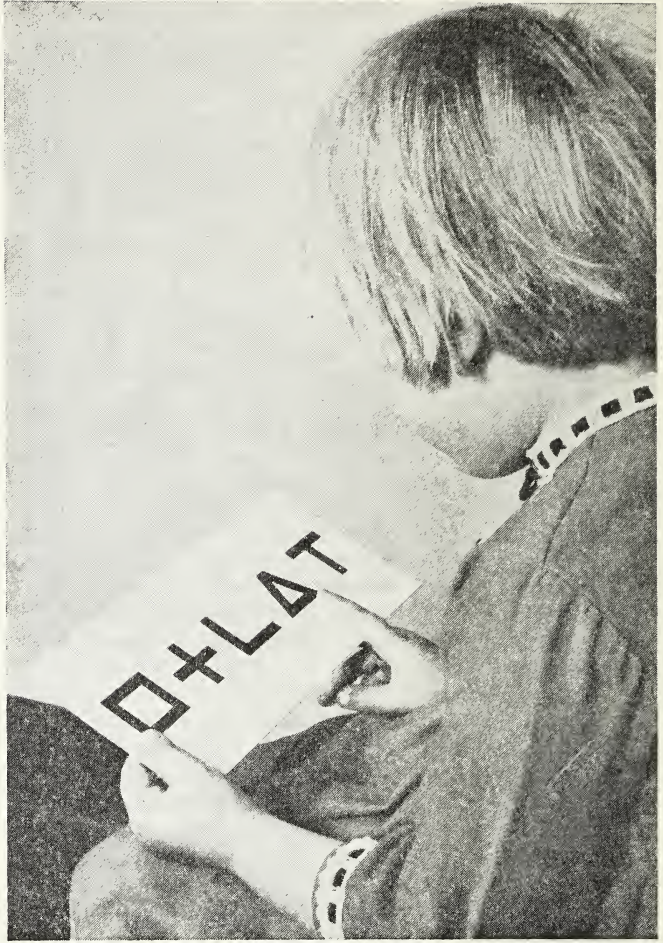


FIG. 2

FIG. 1—The Blackburn Shape Test card.

FIG. 2—The Shape Test card in use.

RESULTS

We conceived that the purpose of vision screening was to determine the presence of impaired visual acuity by a rapid yet accurate "mass" screening test, and thereafter to elicit the cause of the defect at a more detailed ophthalmic examination. This method is open to the criticism that so-called false-negatives "pass" the screening test and yet have errors of refraction, etc., requiring correction. However, it was felt that it would be impracticable to refract every child in view of the large numbers involved. It is the policy of the Medical Officer of Health for Blackburn to conduct

COMPARISON BETWEEN THE SHAPE TEST AND THE E TEST

TABLE IIA

	Visual Acuity	Shape Test			
		6/6, 6/6	6/6, 6/9	6/9, 6/9	Total
E Test	6/6, 6/6	28	3	1	32
	6/6, 6/9	8	2	0	10
	6/9, 6/9	1	1	1	3
	6/9, 6/12	0	1	0	1
	6/12, 6/12	0	1	0	1
	Total	37	8	2	47

TABLE IIB

Case Number	Right Eye	Left Eye	Type of Test
Case 1 (antimetropia) ..	6/12 6/12	6/12 6/18	Shape E
Case 2 (anisometropia) ..	6/6 6/6	6/18 6/24	Shape E
Case 3 (anisometropia) ..	6/18 6/18	6/18 6/24	Shape E

regular vision screening surveys of the school population so that each child will undergo a vision test every third year throughout his school days. Visual defects passed at one examination will probably become apparent at a subsequent examination when the child is older, and, presumably, a more accurate observer. So far, only eleven children having "passed" this present survey have been found to have defective vision at a second vision screening carried out by the staff of Health Visitors.

Altogether 3,727 children attending the Primary School infant classes of 45 schools were examined. 370 (10 per cent.) were found to have defective vision and were referred to the Ophthalmologist for further investigation. Normal visual acuity was found in 63 children upon retesting; these children together with the 54 who failed to attend for investigation are excluded from the analysis of the results, although the "false-positive" referrals are examined separately in further detail. Twenty children were referred for investigation of a strabismus discovered by the cover test in the absence of defective vision. Table III shows in detail the numbers of children referred as a result of the three tests. Almost twice as many children

TABLE III

CHILDREN WITH VISUAL DEFECTS DISCOVERED
BY THE VISION SCREENING SURVEY

Age (Yrs)	Type of Test			Total
	Shape	E	Snellen	
3—4	2	0	0	2
4—5	24	17	0	41
5—6	63	34	1	98
6—7	70	21	9	100
Over 7	5	2	5	12
Total ..	164	74	15	253

were tested by the Shape Test (63.6 per cent.) as were tested by the E Test (32.1 per cent.). The total number of visual defects discovered in each group tested closely adheres to this two to one ratio (Shape Test, 64.8 per cent.; E Test, 29.6 per cent.), as does the total number of "false-positive" referrals in each group (Shape Test, 65.1 per cent.; E Test, 30.2 per cent.).

"False-positive" Referrals

The "false-positive" referrals amounted to 20 per cent. of the total number investigated (63 out of 316), or 1.7 per cent. of the total number screened. These children were found to have normal visual acuity and no error of refraction, and are essentially screening failures. Table IV (overleaf) shows in detail the number of children in each age group, as tested by the three screening methods, who had an apparent visual defect upon first testing. The percentage "false-positive" referrals in each group is almost identical, and comparing the Shape Test against the E Test there did not appear to be any advantage of one over the other in the avoidance of screening error.

Amblyopia

Probably the most important single function of a vision screening survey of this nature is to uncover the presence of the "straight amblyope." The earlier the discovery of amblyopia, the greater the chance of the child developing and retaining both good visual acuity and binocular vision after the appropriate treatment. Ninety children in this series were found to be amblyopic in the absence of a demonstrable squint. They were divided into two Groups :

Group A : Anisometropia and amblyopia, 55 cases.

Group B : Isometropia and amblyopia, 35 cases.

TABLE IV

"FALSE-POSITIVE" REFERRALS

(Figures in parentheses indicate percentage of the total numbers tested).

Age	Type of Test			Total
	Shape	E	Snellen	
3—4 years ..	2 (3.6%)	1 (4.4%)	None tested	3
4—5 years ..	14 (3.0%)	7 (1.8%)	None tested	21
5—6 years ..	18 (2.1%)	8 (1.9%)	0	26
6—7 years ..	6 (0.7%)	3 (1.0%)	2 (1.7%)	11
Over 7 years ..	1 (0.9%)	0	1 (4.0%)	2
Total ..	41 (1.8%)	19 (1.7%)	3 (1.8%)	63 (1.7%)

In an earlier investigation (Stevens, 1960) in an attempt to determine at what level of difference between the two eyes anisometropia assumed importance in the aetiology of amblyopia, it was found that a difference of refraction of over 1.00 dioptre was significant. This level of difference is taken as the standard of anisometropia for this present investigation. A child was considered to be amblyopic if a difference of two lines or more on any one of the test charts was found between the visual acuity of the two eyes.

After refraction and the provision of spectacles, 55 children in Group A and 33 children in Group B still had subnormal vision amounting to amblyopia in the more ametropic eye. These children were instructed to wear their glasses constantly and were retested after an interval of from three to four months. Altogether 34 children in Group A and 20 children in Group B were found to have improved to normal visual acuity as defined above. Seventeen children in Group A and eleven children in Group B were selected for a course of occlusion, and of these twelve children in Group A and six children in Group B had achieved normal visual acuity at the time of writing. The remainder are still under treatment.

Thus, a total of 72 out of ninety children (80 per cent.) with amblyopia without strabismus achieved normal visual acuity within a relatively short time after the discovery of the amblyopia—a result which surely justifies the great effort involved in screening a large population of school entrants. In addition, all these children developed binocular vision.

Of the remaining eighteen children who did not improve to normal visual acuity in these two groups, fifteen children made a limited recovery. With one exception they were over six years of age. Table V shows the improvement achieved in the amblyopic eye to date. Two children made no improvement, one of whom had a toxoplasma chorio-retinitis involving the macula to such an extent that no recovery of vision can be

TABLE V
RESULTS OF TREATMENT FOR AMBLYOPIA—
CASES OF INCOMPLETE RECOVERY

Present Visual Acuity	Visual Acuity at First Test				Total
	6/18	6/24	6/36	6/60	
6/12	5	2	1	2	10
6/18	0	2	2	1	5
Total	5	4	3	3	15

anticipated ; the second child had unilateral myopia of —18.00 dioptre with an emmetropic fellow eye. The remaining child had a congenital cataract in one eye ; this has now been needled and is in the process of having a contact lens fitted.

Strabismus

Seventy-four children with manifest strabismus were discovered during the screening survey. The strabismus was associated with defective vision in 54 children, 28 of whom were amblyopic in one eye and in need of urgent treatment (Table VI).

TABLE VI
NUMBER OF CASES OF STRABISMUS

(Figures in parentheses indicate the number of amblyopes in each group).

Age (Yrs)	Type of Test			Total
	Shape	E	Snellen	
	Without Defective Visual Acuity			
3—4	1	0	0	1
4—5	3	1	0	4
5—6	4	0	0	4
6—7	6	0	1	7
Over 7	4	0	0	4
	With Defective Visual Acuity			
4—5	5 (3)	6 (3)	0	11
5—6	13 (11)	6 (3)	1 (1)	20
6—7	17 (6)	4 (1)	0	21
Over 7	0	1	1	2
Total ..	53 (20)	18 (7)	3 (1)	74

None of these children had ever before undergone an ophthalmic investigation, which is an astonishing commentary upon the complacency with which parents and family doctors regard squints, many of whom still aver that the child will "grow out of it."

DISCUSSION

The results of a pilot vision screening survey of the population of the infant classes of schools in Blackburn have been described. The Orthoptic Department initiated the survey, the primary object of which was the early detection of the child with amblyopia but no squint ("straight amblyope") as soon after school entry as possible. (The screening of these young children has now been taken over by the staff of Health Visitors and has become a regular feature in the medical care of the school child, whose vision is assessed at 3-yearly intervals from entry to leaving). When a visual defect was discovered the child's parents were informed and an appointment offered for the child to attend for further investigation by the Ophthalmologist in the regular school ophthalmic clinic. All but 14 per cent. of these referrals attended and it is known that many of the non-attenders sought further advice elsewhere.

A vision screening survey is an attempt to draw a line between those who need professional advice and those who do not. It is not a complete ophthalmic examination nor a substitute for the same, and particular care was taken to impress this upon the parents concerned, particularly in the case of those children who were found to have normal vision upon retesting by the Ophthalmologist. *Per contra*, passing a screening test does not necessarily imply that an individual child is without an ocular defect, only that specific ocular defects have been excluded as in the case of this survey. Within these limits the survey was successful in discovering and referring for treatment ninety "straight amblyopes" and 74 new cases of strabismus. The remaining 109 children with subnormal visual acuity in the absence of amblyopia were found to have sufficient ametropia to warrant the prescription of spectacles.

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